

RELATED APPLICATION

This application is a divisional of applicant's U.S. Patent Application filed October 28, 1997, entitled "UNIVERSAL GAMING ENGINE," which is a divisional of the applicant's U.S. Patent 5,707,286, issued January 13, 1998, entitled "UNIVERSAL GAMING ENGINE" filed December 19, 1994.

IN THE CLAIMS:

Please cancel in this application original claims ~~1-25~~ and ~~28~~ before calculating the application fee.

26. (amended) A method for generating random numbers comprising the steps of:
providing a signal comprising a continuously changing deterministic output;
encrypting the signal;
grouping the encrypted signal into sets of raw pseudo-random numbers; and
verifying that the sets of raw pseudo-random numbers comprise independent, uniform, sets of statistically pseudo-random numbers.

27. (amended) The method of claim 26 further comprising:
temporarily storing the verified sets of statistically pseudo-random numbers [in a buffer]; and
distributing a portion of the stored, verified pseudo-random numbers [from the buffer] in response to a request for random numbers [from a device external to the random number generator].

Add new claims:

28. A method for generating random numbers comprising the steps of:
generating a series of raw random numbers,
verifying that the series of raw random numbers is statistically consistent at a predetermined level of certainty,
delivering only random numbers that pass the step of verification.

³⁰
~~29.~~ The method of claim ²⁹~~28~~ wherein the step of verification comprises the steps of:

dividing the raw random numbers into groups,
testing the statistical consistency of each group of raw random numbers,
storing the groups of raw random numbers that pass the step of testing.

³¹
~~30.~~ The method of claim ²⁹~~28~~ wherein the step of generating the raw random number series comprises the steps of:

outputting a continuous clock signal,
providing key and seed values,
producing the series of raw random numbers in response to the outputted continuous clock signal and the provided key and seed values.

³¹
~~31.~~ The method of claim ³¹~~30~~ further comprising the step of rebooting the step of producing the series of raw random numbers with the same seed values, key values, and clock value that existed before a failure to produce in response to the failure to produce.

³³
~~32.~~ The method of claim ²⁹~~28~~ further comprising the step of:
transforming a set of the delivered random numbers into random values having non-uniform distribution.

³⁴
~~33.~~ The method of claim ³³~~32~~ wherein the non-uniform distribution is one of a group comprising: normal distribution, exponential distribution, gamma distribution, geometric distribution, and hypergeometric distribution.

³⁵
~~34.~~ The method of claim ²⁹~~28~~ further comprising the step of:
transforming a set of the delivered random numbers into at least one combinational subset.

³⁶
~~35.~~ A method of claim ²⁹~~28~~ wherein the step of generating a series of raw random numbers further comprises the steps of:

outputting a continuously variable signal at a regular interval,
receiving an event signal,

logically combining the event signal with the continuously variable signal to provide a combined signal,

generating the series of raw random numbers in response to said combined signal.

³⁷
~~36.~~ A method for generating random numbers comprising the steps of:
generating a series of pseudo-random numbers,
transforming a set of the generated series of pseudo random numbers into random values having non-uniform distribution.

³⁸ ³⁷
~~37.~~ The method of claim ~~36~~ wherein the step of generating comprises the steps of:
generating a series of raw random numbers,
verifying that the series of raw random numbers is statistically consistent at a predetermined level of certainty,
delivering only random numbers that pass the step of verification.

³⁹ ³⁸
~~38.~~ The method of claim ~~37~~ wherein the step of verification comprises the steps of:
dividing the raw random numbers into groups,
testing the statistical consistency of each group of raw random numbers,
storing the groups of raw random numbers that pass the step of testing.

⁴⁰ ³⁸
~~39.~~ The method of claim ~~37~~ wherein the step of generating the raw random number series comprises the steps of:

outputting a continuous clock signal,
providing key and seed values,
producing the series of raw random numbers in response to the outputted continuous clock signal and the provided key and seed values.

⁴¹ ⁴⁰
~~40.~~ The method of claim ~~39~~ further comprising the step of rebooting the step of producing the series of random numbers with the same seed values, key values, and

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clock value that existed before a failure in producing in response to the failure in producing.

⁴²
41. The method of claim ³⁷~~36~~ wherein the non-uniform distribution is one of a group comprising: normal distribution, exponential distribution, gamma distribution, geometric distribution, and hypergeometric distribution.

⁴³
42. The method of claim ³⁷~~36~~ further comprising the step of:
transforming a set of the delivered random numbers into at least one combinational subset.

⁴⁴
43. A method of claim ³⁷~~36~~ wherein the step of generating random numbers further comprises the steps of:

outputting a continuously variable signal at a regular interval,
receiving an event signal,
logically combining the event signal with the continuously variable signal to provide a combined signal,
generating the series of pseudo-random numbers in response to said combined signal.

⁴⁵
44. A method for generating random numbers comprising the steps of:
outputting a continuously variable signal at a regular interval,
receiving an event signal,
logically combining the event signal with the continuously variable signal to provide a combined signal,

providing key and seed values,
producing a series of raw random numbers in response to the combined signal and the provided key and seed values,
dividing the raw random numbers into groups,
testing the statistical consistency of each group of raw random numbers,
storing the groups of raw random numbers that pass the step of testing,
delivering random numbers from the stored groups testing.